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July 1, 2005

TO: Mr. Russell Hart, RPM
United States Environmental Protection Agency
Region V
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

FROM: Mr. David Curnock, PM, SECOR International Incorporated *DM*

RE: **MONTHLY PROGRESS REPORT/MEMORANDUM**
Area 9/10 Remedial Design
Southeast Rockford Groundwater Contamination Superfund Site
Rockford, Illinois

Copies: Mr. Thomas Turner, Regional Counsel, USEPA Region V
Mr. Scott Moyer, Hamilton Sundstrand/United Technologies Corporation
Ms. Kathleen McFadden, United Technologies Corporation
Mr. Thomas Williams, PM, IEPA
Mr. Terry Ayers, IEPA

CURRENT MONTH PROJECT ISSUES/STATUS: *(activities, meetings, deliverables, etc.)*
Activities conducted in June 2005 consisted of the continuation of Pre-Design Investigation and conceptual design activities. Based on recent discussions between USEPA, IEPA, and SECOR, there are two areas of focus at this time with respect to the Remedial Design activities. These areas are the former RCRA Outside Container Storage Area (OSA) and the area beneath the Hamilton Sundstrand (HS) Plant #1, up-gradient of the additional monitoring wells installed in the western portion of the South Alley.

A work plan for source mass removal in the OSA was submitted to USEPA and IEPA in April. The work plan provided an analysis of the Pre-Design Investigation data collected to date, the rationale for the source removal effort, and a description of the planned activities. Comments on the work plan were received from USEPA and IEPA on May 31, 2005. In June there was some discussion between USEPA, IEPA, and SECOR regarding the planned activities. A response letter to the comments on the work plan was submitted to USEPA on June 28, 2005.

The second area of focus is that area beneath the HS facility that has been identified as a location of potential source material based on down-gradient groundwater monitoring results. The most likely location of the potential source material is associated with the former area of underground storage tanks (USTs) which were in the central portion of the plant south of the loading dock area. With access to the inside of the building unavailable, alternative means have been explored and horizontal drilling appears to be the most effective method of infrastructure installation.

A preliminary conceptual design for horizontal wells and pilot testing letter was submitted to USEPA and IEPA in late May 2005. This letter provides an overview of the currently

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envisioned potential horizontal well and pilot testing treatment corridor. The plan outlines the optimal installation and treatment area without consideration of access constraints (both off-site and on the property). Pilot testing of the horizontal wells will be a necessary part of the overall remedial design. The horizontal air sparge (AS) and soil vapor extraction (SVE) wells that are planned for pilot testing will likely become part of the final remedial design. This is consistent with a final remedial system design utilizing the Record of Decision (ROD) prescribed technologies for Area 9/10.

Off-site access for horizontal drilling will be required. Access to the DRB property to the south of the plant and beneath the Illinois Central Railroad line north of the plant will be necessary. The DRB property owners allowed access for the completion of soil borings and monitoring wells on their property as part of the Pre-Design Investigation activities in the past. The horizontal well installation and pilot testing activities will, however, be more intrusive than previous efforts.

To facilitate the preparation of the work plan for the AS and SVE horizontal well installation and pilot testing, the installation of a horizontal monitoring well beneath the facility is being evaluated. Knowledge of the concentrations of various constituents of concern in groundwater will assist in the work plan development effort. A brief work plan will be prepared which outlines the scope of work to be undertaken associated with this effort. This plan will provide specific well installation, well development, baseline sampling, and pilot test program details introduced in the preliminary conceptual design letter submitted in late May. Prior to submittal of the plan, HS will contact the DRB property owner and Illinois Central Railroad regarding access for the well installation activities and to confirm the viability of the optimal locations identified or alternate locations. The target submittal date for the work plan or horizontal monitoring well is mid August 2005.

The operation and hydrocarbon recovery of LNAPL (JP-4) from the recovery system in the south alley for the first quarter of 2005 has been reviewed. Overall, the system has been operating effectively. There was no measurable hydrocarbon in any of the three recovery wells (RW-1, RW-2, and RW-3) at the time of the most recent water level measurements on May 3, 2005. On that date, the pumps were shutdown for several hours prior to removal of the pumps and gauging the groundwater levels. The well pumps were also inspected and cleaned at that time and reinstalled in the wells. The hydrocarbon recovery data from these systems has been compiled into a summary table which is presented as Table 1.

FUTURE PROJECT ISSUES/STATUS: *(activities, meetings, deliverables, etc.)*

Future project activities anticipated for July 2005 include:

- Continuing discussions with regard to the activities proposed in the OSA Work Plan.
- Approval of the work plan by USEPA/IEPA. Assuming that there are no significant changes to the scope of work, it is anticipated that this effort will be approved for implementation in Summer 2005.

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- Upon approval, SECOR will commence final preparations for completion of the work. These activities will include landfill acceptance for the waste, groundwater sampling for electron acceptors, volume calculation and procurement of the HRC-X material, HRC-X placement, short term groundwater monitoring to confirm changes in the aquifer electron acceptor concentrations, well abandonment, and secure commitments from excavation and transportation contractors for work plan execution.

A letter was submitted to the USEPA and IEPA in May which outlined the conceptual horizontal SVE and AS well installation, well alignment, and pilot testing activities in support of future design efforts. Alternative contaminant source identification and access means will continue to be evaluated. Additional discussions, both internally and with the USEPA and IEPA, are anticipated with respect to horizontal drilling and additional pilot testing prior to preparation of a final design.

One topic of these discussions will be the required set back distances and off-site access for horizontal drilling. This issue has the potential to affect the overall design and constructability of a system. Currently, there is a presumption of reasonable access to the off-site property(s). However, the DRB property (2525 11th Street) to the south has been for sale and according to information from IEPA, has been sold. This could affect current and future access. SECOR will be working along with IEPA to identify and contact the new owners to initiate continued and additional access to this property. Utility clearance (even with horizontal drilling) could also be an issue. Therefore, local utility companies will be contacted to verify locations and approve of the techniques and potential subsurface crossings. There is also the potential when drilling on the property of others that previously unknown contamination may be encountered.

Compilation of the Pre-Design Investigation data into the Data Summary Report has begun. This report will include boring logs, figures, groundwater flow information, and all laboratory analyses undertaken as part of the Pre-Design Investigation.

Monitoring and evaluation of LNAPL (JP-4) presence and recovery at the eastern end of the South Alley will continue. It is anticipated that the second quarter 2005 recovery information summary table will be reviewed and finalized in July and provided as part of the monthly memo in August.

SAMPLE/TEST DATA SUBMITTALS:

None.

RD SCHEDULE UPDATE: *(attach updated schedule as necessary)*

As the activities associated with the Pre-Design Investigation portion of the Remedial Design (RD) continue, the overall schedule continues to be revised. A scope of work concerning the source mass reduction (by excavation) of near surface impacted soils in the OSA was submitted to the USEPA and IEPA in April. Comments on the work plan were

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received at the end of May. It is anticipated that the plan will be approved in July. This source mass reduction activity is anticipated to take place in Summer 2005 based on agency approval of the plan without significant modification.

Access to potential source materials beneath the HS facility building will require the use of horizontal drilling. As mentioned previously, off-site access will be required for implementation of this technique. Access to off-site properties presents a potential to affect the schedule for implementation. HS is working on logistical issues associated with this drilling technology and will continue to work with the USEPA on keeping the RD efforts for Area 9/10 moving forward in a timely and reasonable fashion.

REALIZED/ANTICIPATED PROBLEM CONDITIONS:

None.

PERSONNEL CHANGES:

None.

Hamilton Sundstrand
Area 9/10
Southeast Rockford Groundwater Contamination Superfund Site

Plant # 1 - South Alley Recovery System

Summary for Year - 2005

Month	RW-1 Volume of Product Recovered	RW-2 Volume of Product Recovered	RW-3R Volume of Product Recovered	Total Volume Product Recovered	Days System Operational	Comments and Notes
January	0	122*	0	0*	31	* A leak in the connection hose at RW-2 allowed water to be recovered by the system. The recovered water was recorded as product by the operator on the documentation form. The connecting hose was repaired in late January 2005.
February	0	0	0	0	28	
March	0	0	0	0	31	
April	0	0	0	0	30	
May						Well Gauging on May 3, 2005 indicated no measurable product in any of the three recovery wells.
June						
July						
August						
September						
October						
November						
December						